



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> <b>(21) International Application Number:</b> PCT/FI98/00511  <b>(22) International Filing Date:</b> 12 June 1998 (12.06.98)  <b>(30) Priority Data:</b>            973303                      12 August 1997 (12.08.97)                      FI  <b>(71) Applicant (for all designated States except US):</b> NOKIA MOBILE PHONES LTD. [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).  <b>(72) Inventors; and</b>  <b>(75) Inventors/Applicants (for US only):</b> LEPPISAARI, Arto [FI/FI]; Satakunnankatu 5 A 25, FIN-33100 Tampere (FI). HÄMÄLÄINEN, Jari [FI/FI]; Nallekarhentie 20, FIN-36100 Kangasala As. (FI).  <b>(74) Agent:</b> JOHANSSON, Folke; Nokia Mobile Phones Ltd., P.O. Box 100, FIN-00045 Nokia Group (FI).         </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).   <b>Published</b>  <i>With international search report.</i>   <b>(88) Date of publication of the international search report:</b>            29 April 1999 (29.04.99)         </td> </tr> </table>			<b>(21) International Application Number:</b> PCT/FI98/00511 <b>(22) International Filing Date:</b> 12 June 1998 (12.06.98) <b>(30) Priority Data:</b> 973303                      12 August 1997 (12.08.97)                      FI <b>(71) Applicant (for all designated States except US):</b> NOKIA MOBILE PHONES LTD. [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> LEPPISAARI, Arto [FI/FI]; Satakunnankatu 5 A 25, FIN-33100 Tampere (FI). HÄMÄLÄINEN, Jari [FI/FI]; Nallekarhentie 20, FIN-36100 Kangasala As. (FI). <b>(74) Agent:</b> JOHANSSON, Folke; Nokia Mobile Phones Ltd., P.O. Box 100, FIN-00045 Nokia Group (FI).	<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>  <b>(88) Date of publication of the international search report:</b> 29 April 1999 (29.04.99)
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<b>(54) Title:</b> POINT-TO-MULTIPOINT MOBILE RADIO TRANSMISSION				
<pre> graph TD     RLC[RLC] --- LLC[LLC]     LLC --- SNDCP[SNDCP]     SNDCP --- Signalling((Signalling))     SNDCP --- SMS((SMS))     SNDCP --- PTM_M((PTM-M))     SNDCP --- IP((IP))     SNDCP --- X25((X25))     SNDCP --- PTM_G((PTM-G))     SNDCP -.- NSAPI[NSAPI]     SNDCP -.- SAPI[SAPI] --- LLC       </pre>				
<b>(57) Abstract</b>  <p>A method of operating a mobile communication system supporting data transmission between a mobile station (MS) and a network in a number of different packet data protocols (PDPs) including a point-to-multipoint-multicast (PTM-M) protocol. PDP data is formatted and unformatted by a subnetwork dependent convergence protocol (SNDCP) according to the PDP of data. The PDP is identified to the SNDCP by a protocol identifier transmitted between the network and the mobile station. In order to allow a MS to receive a PTM-M in an IDLE state, a unique protocol identifier is permanently assigned to PTM-M transmissions whilst other identifiers are dynamically assigned to other PDPs by the network.</p>				

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 98/00511

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04Q 7/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	WO 9825422 A1 (NOKIA TELECOMMUNICATIONS OY), 11 June 1998 (11.06.98) --	1-6
A	WO 9621984 A2 (NOKIA TELECOMMUNICATIONS OY), 18 July 1996 (18.07.96) --	1-6
A,E	WO 9853576 A2 (TELEFONAKTIEBOLAGET LM ERICSSON), 26 November 1998 (26.11.98) -- -----	1-6

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Information on patent family members

02/02/99

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PCT/FI 98/00511

Patent document cited in search report			Publication date	Patent family member(s)			Publication date
WO	9825422	A1	11/06/98	AU	5123398	A	29/06/98
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